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NICKEL IN MAY 1999

In May, reported domestic nickel consumption on a daily average basis was 7% greater than that of April, according to the U.S. Geological Survey. Average daily consumption by the stainless steel industry in May was 13% higher than that of the revised April average of 121 metric tons (t). Consumption of elemental nickel to make superalloys and nickel-base corrosion resistant alloys also increased. However, the increases for stainless steel and nickel-base alloys were partially offset by decreases in six other end use categories. Daily consumption by alloy steel producers—a considerably smaller tonnage than that of stainless steel—decreased by 22%. Sales to plating companies averaged 42 metric tons per day (t/d), down 3% from the April sales figure of 43 t/d. Percentages reported in this paragraph may not be verifiable owing to concealment of individual company proprietary data.

On May 31, U.S. consumer stocks of cathode, pellets, briquets, and powder totaled 3,590 t—a drop of 43% from the 1998 high of 6,330 t (revised) reached on December 31. Stocks in London Metal Exchange (LME) warehouses worldwide decreased 5% during May to 57,246 t. LME stocks at yearend 1998 were 65,964 t. Preliminary data collected by the International Nickel Study Group indicated that, at the end of May, world nickel producers (excluding those in Austria, China, the former Yugoslavia, and the Ural area of Russia) had approximately 103,500 t of Ni in primary products in stock. Of the 103,500 t held by producers, 76,600 t were Class I materials. Class I materials are refined products with a nickel content of 99% or greater (electrolytic cathode, pellets, briquets, rondelles, powder, etc.).

The United States imported 43,200 t of primary nickel during the first 4 months of 1999, 24% less than the tonnage for the corresponding period of 1998. Class I materials accounted for 84% of total primary imports received during the first 4 months of 1999. Trade data for May 1999 will appear in a subsequent issue.

Nickel exploration in Canada—An update [Part 1 of 2]
(Part 2 will appear in a subsequent issue.)

Voisey's Bay, Labrador.—Inco Limited and its subsidiary, Voisey's Bay Nickel Company Limited (VBNCL), remain committed to developing the huge nickel-copper-cobalt deposit in northeastern Labrador. An impasse between Inco and the Provincial Government of Newfoundland and Labrador over the scope of the project has temporarily delayed development (Inco Limited, 1999a). Weak nickel prices in 1998 and the first half of 1999 forced the company to reassess its original plans to build a smelter and refinery at Argentia on the island of Newfoundland. The Argentia complex would have processed pentlandite concentrate shipped by sea from the proposed mine and mill near Voisey's Bay.

Inco also has been reluctant to proceed with critical parts of the project until representatives of the aboriginal peoples in the region conclude their land claim negotiations with the Federal and Provincial Governments. The two principal aboriginal groups are the Labrador Inuit Association and Innu Nation. Both groups are separately negotiating impact and benefit agreements with Inco. In December 1998, the Labrador Inuit Association reached a tentative agreement-in-principle with the Federal and Provincial Governments on land claims issues (Government of Canada, 1999).

In January 1997, a five-member panel was created to oversee the environmental review process for the proposed mine and mill. The panel was established by a memorandum-of-understanding signed by the Governments and the two aboriginal groups. In December 1997, Inco submitted an in-depth and lengthy Environmental Impact Statement on the mining and milling portion of the project to the assessment panel and regulatory authorities (Inco Limited, 1997). After an extensive review, the panel held public hearings from September to early November 1998 at various locations in the Province. On April 1, 1999, the panel recommended that Inco be given tentative approval to

proceed with the project, subject to a number of stipulations. The panel made more than 100 recommendations as part of its report (Inco Limited, 1999b).

A court decision in mid-1997 has prevented Inco from constructing a temporary road and airstrip at Voisey's Bay (Voisey's Bay Nickel Company Limited, 1997). The absence of the airstrip, in turn, has kept Inco from conducting underground exploration and developing an underground mining plan. The ruling has been appealed to the Supreme Court of Newfoundland. To date, exploration efforts have relied on surface drilling to gather information about the geology of the area. During the first half of 1999, four diamond drill rigs were operating either in the sector where the Voisey's Bay deposit is located or in four neighboring sectors where regional geologic and geophysical targets have been identified. A total of 28,385 meters was drilled during the 6-month period (Inco Limited, 1999c). Fifteen boreholes were completed during the first quarter of 1999 and three more were being drilled in April.

A new zone of mineralization, the NED Zone, has been identified 400 meters north of the Eastern Deeps section. Two holes drilled at opposite ends of the NED zone intersected mineralization. The first hole reportedly intercepted 25.2 meters of sulfides grading 0.96% Ni, 0.82% Cu, and 0.056% Co. The second hole intercepted 15 meters of sulfides grading 1.11% Ni 0.93% Cu, and 0.074% Co. Regional stratigraphic drilling in an area 1,000 meters east of the Far Eastern Deeps section intercepted troctolitic rocks that were unmineralized.

Work on the Kiglapaits property 60 kilometers north of the main claim area continued. The results to date have been very promising. Drilling in the fall of 1998 encountered narrow intersections of nickel mineralization.

South Voisey's Bay, Labrador.—Donner Minerals Ltd. and its partners had planned to spend C$2.75 million exploring their claims in the South Voisey's Bay (SVB) project area during the 1999 field season. The exploration program would have included airborne and ground geophysical work as well as diamond drilling (Donner Minerals Limited, 1999a). However, on July 6, 1999, Donner announced that the company has been unable to reach an agreement with the Innu Nation. The Innu Nation is currently conducting land claims negotiations with the Federal Government of Canada and the Provincial Government of Newfoundland and Labrador. Donner was unwilling to risk a confrontation at its SVB exploration camp and decided to cancel its 1999 exploration program (Donner Minerals Limited, 1999b).

Between May and December 1998, Donner drilled 39 new holes and deepened 5 others, for a total of 15,218 meters (Donner Minerals Limited, 1998a,b). In October 1998, Teck Corp., a Canadian nonferrous metals producer and SVB project sponsor, agreed to invest an additional C$1.05 million in Donner.

References Cited

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———1999a, News release—[South Voisey's Bay project]: Vancouver, British Columbia, Donner Minerals Limited press release, June 28, 2 p.

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[Government of Canada], 1999, Canadian national statement: International Nickel Study Group, [The Hague, the Netherlands], April 21, 1999, 3 p.

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———1999b, Inco Limited reports a first quarter loss of $16 million (U.S.). Restructuring and cost-cutting programs continue: Toronto, Ontario, Inco Limited press release, April 27, 7 p.

———1999c, Inco Limited meets annual cost reduction target of $215 million (U.S.) ahead of schedule. $35 million (U.S.) additional permanent cost reductions identified. Second quarter loss of $1 million (U.S.): Toronto, Ontario, Inco Limited press release IN11/99, July 26, p. 6-8.

Voisey's Bay Nickel Company Limited, 1997, Press release—[Impact of Court of Appeal injunction]: St. John's, Newfoundland, Voisey's Bay Nickel Limited press release, August 28, 1 p.

TABLE 1
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE 1/

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total	Total year to date
1998:					
May	6,450 r/	1,080	543	8,070	44,100 r/
June	6,750 r/	1,080	397	8,230	52,300 r/
July	6,710 r/	1,400	455	8,570	60,900 r/
August	6,290 r/	1,130	446 r/	7,870 r/	68,800 r/
September	6,490 r/	924	460	7,870 r/	76,600 r/
October	6,850 r/	999	553	8,400 r/	85,000 r/
November	5,910 r/	1,050	490 r/	7,450 r/	92,500 r/
December	6,000 r/	1,140	650 r/	7,790 r/	100,000 r/
January-December	81,200 r/	13,700	5,300 r/	100,000 r/	XX
1999:					
January	6,310 r/	987	399 r/	7,700 r/	7,700 r/
February	6,660 r/	824	669 r/	8,160 r/	15,900 r/
March	7,820 r/	487	812	9,120 r/	25,000 r/
April r/	7,660	845	602	9,110	34,100
May:					
Steel:					
Stainless and heat resisting	2,590	1,150	W	3,740	18,600
Alloy (excludes stainless)	315	--	W	315	2,650
Superalloys	1,630	--	W	1,630	6,840
Copper-nickel alloys	W	--	--	W	W
Electrical, magnetic, and expansion alloys	29	--	--	29	170
Other nickel & nickel alloys	1,310	--	W	1,310	4,210
Cast iron	W	--	W	W	W
Electroplating (sales to platers)	1,300	--	W	1,300	6,060
Chemical and chemical uses	W	--	--	W	W
Other uses	1,090	--	692	1,780	5,670
Total reported	8,260 2/	1,150	692	10,100	44,200
Total all companies (calc) 3/	XX	XX	XX	14,900	65,300
1999: January-May	36,700	4,290	3,170	44,200	XX
1998: January-May	36,200	6,000	1,850	44,100	XX

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Of consumption, 6,940 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

3/ Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (67.6852%) to apparent primary consumption for 1997.

TABLE 2
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS,
BY FORM AND USE 1/ 2/

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total
1998:				
May	4,680	1,490	201	6,370
June	3,580	1,140	286	5,010
July	3,070	542	303	3,910
August	2,540	769	410 r/	3,710 r/
September	3,000	780	392	4,180
October	3,170	726	452	4,350
November	3,090 r/	471	415 r/	3,970 r/
December	6,330 r/	877	1,420 r/	8,620 r/
1999:				
January	5,760 r/	308	1,300	7,370 r/
February	4,380 r/	112	999 r/	5,500 r/
March	3,580 r/	354	390 r/	4,320 r/
April	3,590 r/	97	322 r/	4,010 r/
May:				
Steel (stainless, heat resisting and alloy)	1,620	145	(3/)	1,760
Nonferrous alloys 4/	1,830	--	(3/)	1,830
Foundry (cast irons)	(3/)	--	(3/)	(3/)
Chemical (catalysts, ceramics, plating salts, etc.) and unspecified uses	137	--	311	448
Total	3,590	145	311	4,040

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Stocks held by companies that consume nickel in more than one end use category are credited to the major category. Stocks are subject to revisions owing to inventory adjustment.

3/ Included in the "Chemical and unspecified uses" category.

4/ Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys.

TABLE 3
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE 1/

(Metric tons, nickel content)

	Consumption			Stocks		
Period	Ferrous scrap 2/	Nonferrous scrap 3/	Total scrap	Ferrous scrap 2/	Nonferrous scrap 3/	Total scrap
1998:						
May	4,440	831	5,270	4,470	196	4,670
June	3,080	873	3,950	5,030	181	5,210
July	4,190	942	5,130	5,010	185	5,200
August	3,680	809	4,490	4,520	160	4,680
September	3,470	822	4,300	4,320	157	4,470
October	3,150	737	3,890	4,600	145	4,740
November	3,070	783	3,850	4,850	156	5,000
December	4,290	623	4,910	4,480	161	4,640
January-December	47,300	9,640	56,900	XX	XX	XX
1999:						
January	4,220	797	5,010	4,060	153	4,210
February	3,840	748	4,590	4,260	156	4,420
March	3,900	850	4,750	4,260	159	4,420
April	4,020	967	4,990	3,680	158	3,840
May	4,380	698	5,080	3,230	171	3,400
1999: January-May	20,400	4,060	24,400	XX	XX	XX
1998: January-May	22,300	4,050	26,400	XX	XX	XX

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

3/ Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY 1/

(Metric tons, nickel content 2/)

Period and country of origin	Cathodes, pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total 3/	Total year to date 4/	Wrought nickel
1998:										
April	10,700	914	1,310	8	483	355	258	14,000	60,100	58
May	10,900	769	1,320	5	306	278	248	13,800	74,000	48
June	13,100	1,150	1,440	27	323	238	264	16,500	90,500	40
July	5,870	664 5/	983	--	327	1,420	250	9,510	100,000	66
August	7,550	734	708	235	325	186	188	9,930	110,000	73
September	9,560	577	1,330	401	271	266	258	12,700	123,000	66
October	11,100	1,100	741	495	273	213	271	14,200	137,000	50
November	7,850 5/	616	999	433	300	174	228	10,600	147,000	121
December	6,710	774	296	500	315	169	321	9,080	156,000	84
January-December	120,000	9,850	12,800	2,140	4,210	4,290	3,140	156,000	XX	819
1999:										
January	9,930	697	1,230	185	281	160	181	12,700	12,700	83
February	6,540	783	1,440	302	265	211	240	9,780	22,400	23
March	10,600	926	836	366	394	178	235	13,500	36,000	78
April:										
Australia	329	120	--	--	--	--	--	449	3,100	--
Brazil	80	--	--	--	--	--	--	80	928	--
Canada	5,180	552	--	306	125	81	--	6,240	22,300	--
Colombia	--	--	317	--	--	--	--	317	716	--
Dominican Republic	--	--	680	--	--	--	--	680	1,120	--
Finland	212	17	--	--	--	(6/)	45	274	1,880	--
France	133	--	--	--	93	--	23	249	1,010	1
Germany	6	(6/)	--	(6/)	31	1	27	65	209	38
Japan	--	(6/)	--	--	19	--	136	155	385	19
Mexico	--	--	--	--	(6/)	98	(6/)	98	388	--
New Caledonia	--	--	157	--	--	--	--	157	2,820	--
Norway	74	--	--	--	--	--	--	74	5,350	--
Russia	98	17	--	--	--	1	--	116	3,540	--
South Africa	--	--	--	--	--	--	4	4	43	--
United Kingdom	19	21	--	--	122	--	4	166	446	2
Zimbabwe	78	--	--	--	--	--	--	78	424	--
Other	20 5/	42	--	--	24	--	63	149	691	43
Total	6,230	769	1,150	306	414	181	302	9,350	45,300	103
1999: January-April	33,300	3,180	4,660	1,160	1,350	730	958	45,300	XX	286
1998: January-April	47,400	3,460	5,020	39	1,770	1,340	1,110	60,100	XX	273

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemical category includes chlorides (25%), sulfates (22%), and other salts (22%), supported catalysts (22%), and oxide, sesquioxide and hydroxide (65%).

3/ Excludes wrought nickel.

4/ May include revisions for prior months.

5/ All or part of these data have been referred to the Bureau of the Census for verification.

6/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5
U.S. EXPORTS OF NICKEL, BY COUNTRY 1/

(Metric tons, nickel content 2/)

Period and country of destination	Cathodes, pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total 3/	Total year to date	Wrought nickel
1998:										
April	83	100	177	55	1,300	2,080	293	4,090	14,400	65
May	72	150	8	55	1,230	1,300	452	3,270	17,700	175
June	269	72	2	98	635	2,720	207	4,000	21,700	190
July	33	48	--	132	996	1,710	265	3,180	24,900	69
August	69	61	--	116	1,080	2,440	356	4,120	29,000	65
September	104	85	1	111	971	1,270	336	2,870	31,900	80
October	142	95	--	138	1,060	1,940	235	3,610	35,500	127
November	38	108	1	158	1,300	1,040	156	2,800	38,300	39
December	217	90	1	96	1,120	3,340	367	5,230	43,500	77
January-December	1,210	1,080	918	1,230	12,700	22,400	4,010	43,500	XX	991
1999:										
January	93	60	--	100	615	787	337	1,990	1,990	149
February	11	93	3	168	812	1,010	337	2,440	4,430	59
March	36	90	1	105	958	1,850	460	3,500	7,930	63
April:										
Australia	--	--	--	--	--	--	--	--	17	1
Belgium	--	3	--	--	85	2	49	139	201	18
Canada	--	18	1	161	707	213	68	1,170	4,330	16
Germany	--	12	--	--	67	13	--	92	273	(4/)
India	(4/)	--	--	(4/)	21	1	--	22	82	--
Italy	--	(4/)	--	--	--	2	--	2	6	--
Japan	--	1	--	--	69	21	46	137	833	1
Korea, Republic of	--	6	--	--	--	723	12	741	1,410	1
Mexico	4	15	--	--	--	1	67	87	343	9
Netherlands	--	(4/)	--	--	--	77	7	84	98	--
South Africa	--	--	--	--	--	98	3	101	348	--
Spain	--	--	--	--	--	672	(4/)	672	1,560	--
Sweden	--	--	--	--	--	--	(4/)	(4/)	50	--
Taiwan	--	2	--	--	--	213	15	230	1,230	--
United Kingdom	(4/)	2	--	--	30	--	3	35	93	5
Other	11	10	--	(4/)	10	35	64	131	689	26
Total	15	69	1	161	989	2,070	334	3,640	11,600	77
1999: January-April	154	313	4	535	3,380	5,720	1,470	11,600	XX	347
1998: January-April	262	365	905	327	4,310	6,610	1,640	14,400	XX	171

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemical category includes chlorides (25%), sulfates (22%), and other salts (22%), supported catalysts (22%), and oxide, sesquioxide and hydroxide (65%).

3/ Excludes wrought nickel.

4/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY 1/

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
1998:									
April	108	186	333	174	2	414	43	1,260	4,230
May	156	159	364	216	2	74	104	1,080	5,300
June	240	232	377	88	2	120	70	1,130	6,430
July	195	173	307	166	(2/)	138	66	1,050	7,480
August	169	139	279	168	1	69	25	851	8,330
September	230	129	284	124	9	84	49	910	9,240
October	207	121	228	117	--	130	41	844	10,100
November	228	130	331	185	--	150	41	1,070	11,100
December	130	276	261	189	--	112	16	984	12,100
January-December	2,250	2,140	3,710	1,860	19	1,600	559	12,100	XX
1999:									
January	239	188	277	166	--	120	38	1,030	1,030
February	198	253	339	172	1	37	48	1,050	2,080
March	291	311	427	200	2	135	79	1,440	3,520
April:									
Australia	73	--	--	--	--	--	--	73	346
Belgium	24	--	--	2	--	1	--	27	78
Canada	20	1	(2/)	--	--	4	6	31	170
France	--	--	108	6	(2/)	4	(2/)	118	474
Germany	1	97	80	104	1	9	2	294	1,380
Italy	--	76	2	--	--	1	(2/)	79	393
Japan	18	--	(2/)	--	--	6	3	27	129
Mexico	--	--	--	8	--	--	(2/)	8	26
Netherlands	--	--	--	--	--	--	22	22	101
South Africa	57	--	--	--	--	--	--	57	177
Sweden	--	4	145	7	--	--	--	156	674
United Kingdom	71	43	2	9	--	8	1	134	483
Other	(2/)	1	7	--	--	(2/)	38	48	160
Total	265	222	344	137	2	33	72	1,070	4,590
1999: January-April	992	974	1,390	674	5	325	236	4,590	XX
1998: January-April	692	779	1,280	605	4	723	146	4,230	XX

XX Not applicable.
1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 7
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY 1/

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
1998:									
April	514	298	292	622	21	82	269	2,100	8,800
May	552	317	380	921	2	124	274	2,570	11,400
June	476	256	206	767	7	105	259	2,080	13,400
July	633	293	186	691	16	102	327	2,250	15,700
August	462	356	143	898	11	77	260	2,210	17,900
September	492	301	196	804	4	158	210	2,170	20,100
October	559	373	167	732	6	134	232	2,210	22,300
November	460	313	140	661	7	61	150	1,790	24,100
December	577	456	171	472	1	56	218	1,950	26,000
January-December	5,970	4,150	2,500	9,100	94	1,160	3,040	26,000	XX
1999:									
January	573	264	170	575	14	104	655	2,360	2,360
February	1,090	370	129	723	6	103	263	2,680	5,040
March	896	496	163	688	7	48	206	2,500	7,540
April:									
Australia	17	--	(2/)	20	--	--	(2/)	38	92
Belgium	--	49	1	13	--	(2/)	(2/)	63	82
Canada	22	24	19	28	70	39	46	248	809
France	759	66	1	8	(2/)	(2/)	18	852	3,290
Germany	1	21	11	33	--	(2/)	7	73	369
India	--	--	--	--	--	--	--	--	6
Ireland	--	(2/)	34	(2/)	--	(2/)	(2/)	34	71
Italy	32	2	1	98	--	--	(2/)	133	394
Japan	20	12	3	254	--	5	53	347	1,120
Korea, Republic of	6	(2/)	1	9	--	5	3	24	448
Mexico	(2/)	2	52	4	--	7	48	113	383
Netherlands	--	13	13	9	--	--	6	41	462
Singapore	--	1	1	(2/)	--	(2/)	2	4	101
Spain	--	(2/)	--	(2/)	--	(2/)	--	1	18
Sweden	1	--	--	5	(2/)	--	--	6	35
Switzerland	(2/)	12	3	53	--	2	5	75	189
Taiwan	7	1	(2/)	3	--	(2/)	5	16	140
United Kingdom	36	125	22	142	(2/)	2	3	330	1,180
Other	6	21	6	9	1	12	70	125	881
Total	910	349	168	688	72	72	266	2,530	10,100
1999: January-April	3,470	1,480	630	2,680	97	327	1,390	10,100	XX
1998: January-April	1,760	1,490	913	3,150	39	347	1,110	8,800	XX

XX Not applicable.
1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 8
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
May 1999:		
Stainless and heat resisting steels	81	19
Alloy steels	93	7
Superalloys	86	14
Copper-nickel alloys	100	(1/)
Other nickel-base alloys	100	(1/)

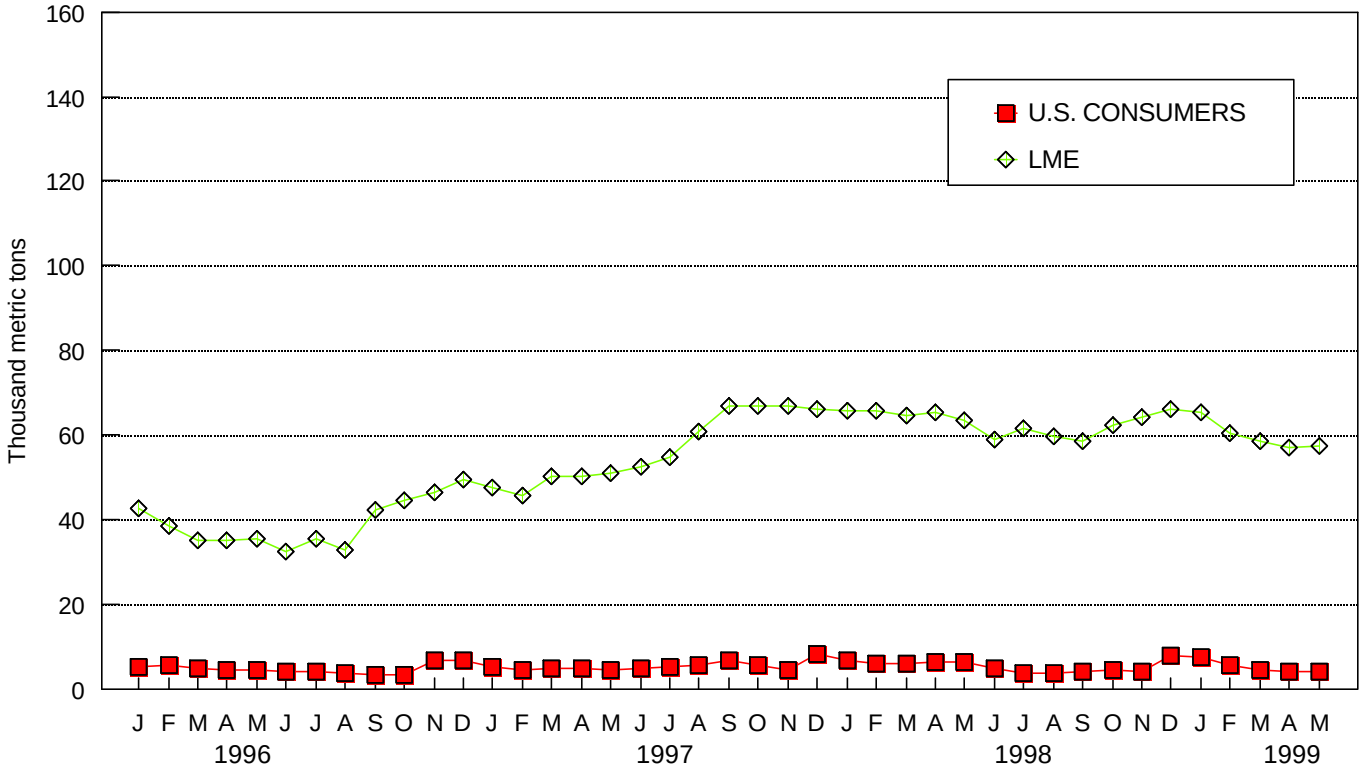
1/ Less than 1/2 unit.

TABLE 9
NICKEL PRICES

Date		Cathode NY Dealer $/lb.	LME Cash $/t	LME Cash $/lb.	18/8 Stainless steel scrap Pittsburgh $/long ton(gw)
1999:					
Average for month of:					
May		2.500	5,399.342	2.449	570
June		2.343	5,195.000	2.356	620
Average for week ending:					
May	7	2.53-2.57	5,467.500	2.480	560-580
May	14	2.54-2.60	5,498.000	2.494	560-580
May	21	2.53-2.58	5,443.500	2.469	560-580
May	28	2.40-2.55	5,202.000	2.360	560-580
June	4	2.22-2.42	4,837.500	2.194	610-630
June	11	2.27-2.38	4,991.500	2.264	610-630
June	18	2.38-2.46	5,236.000	2.375	610-630
June	25	2.50-2.57	5,439.000	2.467	610-630

Source: Platt's Metals Week and American Metal Market.

1996-99 STOCKS



1996-99 AVERAGE MONTHLY PRICES

(Derived from Metals Week and American Metal Market quotations)